TeleNav v3.8 User's Guide

Audible and Visual GPS Navigation for SouthernLINC Wireless

i265, i275, i355, i560, i580, i605, i710, i73X, i760, i83X, i850, i860 and i870 phones

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1. Welcome

TeleNav v3.8 utilizes the integration of GPS position determination technology, the Java programming environment, and access to SouthernLINC Wireless's data network that are all built-in to the Motorola Java + GPS phones listed on the cover. There are four different variants of TeleNav v3.8 tailored to the different properties of families of these phones.

The TeleNav v3.8 services include:

1. GPS navigation than punctually guides you turn-by-turn to any destination address in the Continental US. If you miss a turn or get off-track, TeleNav will calculate a new route for you. You can enter one or more destination addresses by calling an automatic voice recognition system, entering them on the TeleNav website, or keying them directly into the phone. Optionally, the user can input a remote origin and receive Driving Directions from that origin address to a selected destination address.

2. A Biz Finder look-up feature that allows you to find businesses or points of interest near your current location, around a waypoint, around an entered address, or around an airport.

3. Maps of the area around your current location; a marked waypoint; or an address you enter manually, or have previously entered. You can pan the map (adjust left/right/up/down), or zoom in or out.

4. A compass-like indicator presenting your direction of travel, location, and speed.

5. The ability to mark your current location as a waypoint that you can label.

6. A viewer that allows you to see your current location relative to a selected waypoint and to navigate relative to that selected waypoint.

TeleNav's servers support these services via the SouthernLINC data network.

2. Safety and Legal Notices

Please read this section carefully before using TeleNav

TeleNav will not accept any responsibility whatsoever for accidents resulting from failure to observe common sense precautions. Your personal judgment, traffic regulations, and common sense must always take precedence over any driving direction produced by TeleNav.

WARNING: Keep your eyes on the road.

It is your responsibility as the vehicle operator to keep your eyes on the road and be an alert driver at all times, ESPECIALLY when the vehicle is moving. The vehicle operator should not be distracted by the application displays, audible cues, or manually interacting with the controls. When you need to enter data on your phone using the keypad or study the display, please do so while the vehicle is parked, not while in motion. Should your ability to drive responsibly be decreased, please turn off the device.

WARNING: Install the equipment safely.

If you are using a phone mounting kit, make sure that it does not obscure your vision. You may wish to charge the phone while using TeleNav. If so, make sure the charging cable does not interfere with any of the vehicle controls.

WARNING: Drive safely and use common sense.

The vehicle operator's personal judgment, traffic regulations, and common sense must always take precedence over the instructions provided by TeleNav.

It is your responsibility as the vehicle operator to drive safely, observe all traffic rules, and above all use your own personal judgment while driving. If you feel that a route suggested by the navigation software instructs you to perform an unsafe or illegal maneuver, places you in an unsafe situation, or routes you into an area which you consider unsafe, do not follow the instructions.

3. Getting Started with TeleNav

There are 4 steps you will need to follow before your TeleNav service can become fully active:

STEP 1: Set up your TeleNav account with your SouthernLINC Wireless dealer or by visiting http://www.telenav.com.

STEP 2: Your SouthernLINC Wireless dealer offers unlimited use TeleNav service with a wireless Java access package, sold separately according to your forecast data usage.

To order SouthernLINC wireless Java access service, contact your dealer or SouthernLINC Wireless Customer Service Department on a phone (other than your SouthernLINC phone) at 1-800-818-LINC (5462).

The following table is provided for your use in determining whether your will need the 0.75, 1.5, 5.5, or 11 megabyte plan, or whether you need the unlimited wireless Java access package.

TeleNav Function and Demand	Expected Usage
120 Maps per month using a new keypad-entered reference address (only 1 zoom or pan)	1 megabyte per month
60 Non-GPS Driving Directions per month using 2 new keypad-entered endpoint addresses for trips less than 60 miles	1 megabyte per month
50-80 GPS Navigation routes per month using new keypad-entered destination addresses for trips less than 60 miles without street name announcement, and without intersection maps	1 megabyte per month
50-80 GPS Navigation routes per month using new keypad-entered destination addresses for trips less than 60 miles WITH street name announcement, but without intersection maps	5 megabytes per month
20-30 GPS Navigation routes per month using new keypad-entered destination addresses for trips less than 60 miles without street name announcement, but WITH intersection maps	1 megabyte per month
140 TeleNav Biz Finder look-ups per month using a new keypad entered search point address (look-ups only; no navigation, no directions, no maps)	1 megabyte per month

NOTE: Using voice address input or the TeleNav website to enter addresses instead of the phone keypad will reduce network usage by about 20%, but will incur voice minute usage or Internet charges. Our usage data shows that, on average, only 70 seconds is required to dictate an address.

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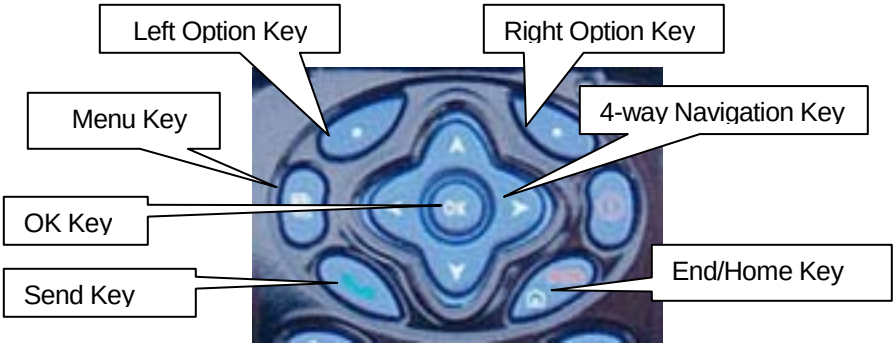
STEP 3: Configure the GPS privacy settings in your phone so that the TeleNav Java application can obtain position fixes from the internal receiver.

STEP 4: Place the phone so it can receive the GPS satellite signals from space. These signals are very faint and come from virtually every direction in the sky as the satellites move through their orbits. We recommend placing the phone in a mount above the dashboard of your vehicle for best results.

4. The Handset Control Keys

Placement of the control keys varies slightly depending upon the specific handset model.



NOTE: In this guide, boldfaced upper-case words like **SELECT** refer to labels that appear in the lower left or lower right corner of the phone's display directly above an Option Key. If this guide asks you to press **SELECT**, it means you should find the Option Key below the **SELECT** label on the display and press it. TeleNav is operated using the Option Keys. If you are to press the **OK** key shown above, it will be expressly called the **OK** key.

5. Installing TeleNav on Your Phone

NOTE: You need at least 366-368 kilobytes (KB) of program memory depending on phone model and 26 kilobytes of data space to install and use TeleNav on your phone. In compressed form, the JAR that is downloaded containing **TeleNav v3.8** v1.0 is approximately 211 kilobytes in size with different variants having slightly different JAR sizes.

Follow these steps to install the TeleNav program to your phone[1]:

1. Press the **Menu** key on your phone. Use the 4-way Navigation Key to highlight "Java Apps" (or the Java Apps icon) and press the **OK** key.

2. Highlight "Download Apps" and press the **OK** key. If the downloader has not been installed, you will need to wait for installation to complete. Then press the **OK** key again.

3. If instructions on using the downloader appear, press **BYPASS**. The downloader will contact SouthernLINC's server to obtain the top-level catalog for your phone.

4. In this top-level catalog, highlight Free/Demo Subscriptions and press **SELECT**.

5. After the Free/Demo Subscriptions catalog loads, highlight **TeleNav v3.8** in the list of applications and press **SELECT**.

6. Read the descriptive application details and press **GET IT**.

[1] A graphical version of these instructions is available at www.telenav.com.

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7. Wait while TeleNav downloads to your phone. This may take 1 to 2 minutes.

8. Once TeleNav is downloaded, you will see a screen with further instructions. Please read the instructions carefully and then press **EXIT**.

9. Highlight **TeleNav v3.8** and press the **OK** key to start software installation. As the TeleNav software installs, a check mark appears to the left of each row on the display. When installation is complete, press **DONE** and you will be taken back to the Main Menu.

If during the installation process the phone reports that it does not have enough space to install TeleNav, you may have to remove one of the other Java programs to create space for TeleNav. You can remove any program except **Java System** and **Download**. If you accidentally remove either of these, you must take your phone to a SouthernLINC service center to have it reinstalled!

To remove a program, highlight the program you want to delete, press the **Menu** key, highlight **Deinstall** (or **Remove**) and press the **OK** key to remove the program. You will be asked to confirm the removal. Follow the steps on the screen until the program has been removed. Then perform the above steps.

6. Access Permissions

GPS Privacy

Your phone restricts access to its GPS location data. The phone's GPS receiver can be in one of three modes: 1) Restricted, 2) Unrestricted, or 3) By Permission. To allow TeleNav to access the GPS data may require changing the Privacy Settings.

First, press the **Menu** key, highlight **GPS** (or the satellite icon) and press the **OK** key. (If you do not find it in the first page of Menu items, press **MORE**.) From the **GPS** menu, select **Privacy** and press the **OK** key. In the **Privacy** menu, scroll down until **Unrestricted** or **By Permission** is highlighted and press the **OK** key. Then, press **BACK** *twice* to return to the Main Screen. "Unrestricted" means that any application can access GPS data, and "By Permission" means that only those applications you allow to do so can access GPS data. We recommend setting the control to "By Permission."

Second, if you set the Privacy control to "By Permission," you have to grant the TeleNav application access to the GPS data. This activity only occurs the first time you use TeleNav after changing the privacy setting to "By Permission."

1. To do this, press the **Menu** key, select **Java Apps**, and press the **OK** key.

2. Once in the Java Apps menu, highlight **TeleNav v3.8** and press the **OK** key.

3. Because the phone has not tested the Privacy Settings for TeleNav before, it will challenge this action and ask if you want to grant permission. You should press **GRANT**. Then it will ask you to choose from three options. Highlight **ALWAYS** and press the **OK** key.

4. TeleNav will then auto-resume so that the handset system can present its request for Auto Invocation permissions.

Future launches of the TeleNav application only require you to press the **Menu** key, select **Java Apps**, highlight **TeleNav**, and press the **OK** key. You may wish to use the Personalize feature of your phone to promote TeleNav to one of the option keys as described in Section 9.

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7. Using TeleNav

Launching the Application

To launch TeleNav on your phone, press the **Menu** key, highlight **Java Apps** (or the Java Apps icon), and press the **OK** key. In the Java Apps menu, highlight **TeleNav v3.8** (or the TeleNav icon) and press the **OK** key. See the Personalizing section for a tip that makes launching TeleNav easier.

From this point on in this guide, key presses refer to the Option Keys below the screen labels bearing the key functional names.

After starting TeleNav, the splash screen will appear for a few seconds along with a description of services. Press **OK** to continue.

The first time TeleNav is used, you must agree to the TeleNav software license and terms of use by pressing **YES**.

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Logging In

The next screen will collect the PIN you provided when registering for TeleNav services at www.telenav.com.

TeleNav
Next, you will be asked to input your 4-digit PIN. You will use this PIN to login at www.TeleNav.com to preplan your trips.
YES
EXIT

Your account number will be populated automatically and MUST be the same as your SouthernLINC Wireless phone number with area code so that when you call the Voice Address Input System you will not need to type in this account number.

When you have finished entering your PIN, press the **OK** soft key to proceed.

NOTE: If after you press **OK**, the TeleNav application indicates that it *cannot* reach the TeleNav servers, the most likely reason is that your SouthernLINC wireless Java access package is not yet active. If the application reaches the TeleNav servers, the server will cause your phone to store the account information so that you will not need to enter it again.

NOTE: If your TeleNav account is expired, you will be notified at this point and will be directed to go to www.telenav.com to extend your service agreement. You will not be able to progress beyond this point until your account is returned to current status. You may also see an important message from TeleNav regarding upgrades, scheduled downtime, pending account expiration, etc.

Initial Content Loading

During your firs- time use of TeleNav subscription services, it will be necessary for the handset to obtain the audible and graphical content needed to build the displays and produce the audible messages you will hear. The following Alert screen will advise you this is about to take place.

Press **OK** to start the content download and installation process.

From time to time, TeleNav may update this content, and will advise you accordingly.

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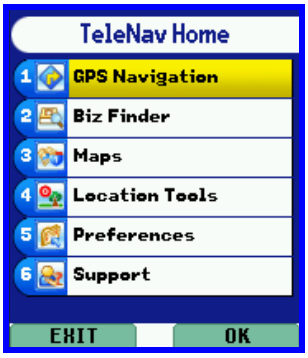
TeleNav Main Menu

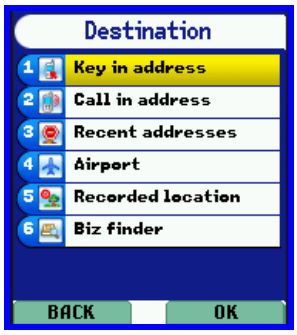
Highlight your choice and press **OK**.

EXIT TeleNav from this menu screen. If you are elsewhere in the TeleNav application, press **BACK** until you see this screen, or press **MENU**, and select "TeleNav Home" to return to this screen. After you press **EXIT**, you must confirm your desire to exit by pressing **YES** on the exit confirmation screen.

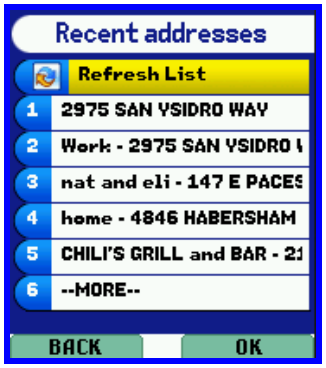


GPS Navigation

The GPS Navigation feature provides real-time navigation guidance from your current GPS location (origin) to a destination address you select from the list of existing destination addresses on your handset, or a newly input address. You can also use this feature to get Driving Directions from a different origin to a selected destination.



Recent Addresses are those you have used previously. Use the **Refresh List** option to get addresses entered telephonically using the **Call in Address** feature or via the www.telenav.com website. Only the website can be used to remove addresses from this list. On the phone, newer addresses replace older addresses during normal use.



Address Entry

Addresses can be entered several different ways:

1. Call the Voice Address Input System and dictate the address. This can be done before launching the TeleNav Java application, or from within the TeleNav application. Simply call 408-523-1429 before starting TeleNav.

2. Use the TeleNav website.

3. Type in the address in the address fields in the Java application on your phone using the keypad.

4. Transfer an address from the Biz Finder **Save for later** feature.

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5. Use a Recorded Location as an address (provided that it is close enough to the street or road to have a valid address.)

After you use method 1 or 2, be sure to use the **Refresh List** feature to update the list of addresses appearing on TeleNav on your phone.

Call In Address

Before starting TeleNav, you can call the Voice Address Input System at 408-523-1429 or 877-886-9762 and dictate a destination address as prompted. After starting TeleNav, use the GPS Navigation > Recent Addresses >Refresh List feature to collect the addresses you dictated.

Within TeleNav, if you select **Call in address**, your phone will go into voice call mode with the Voice Address Input System number displayed on the screen. Press the green **Send** button to dial the number and dictate your address.

When you are done with the call, press **BACK**, the **Menu** key, highlight **Java Apps**, press **OK**, highlight **Suspended Apps**, press the **OK** key, highlight **TeleNav 3**, and press the **OK** key again. At this point, TeleNav will resume and automatically perform **Refresh List** so that the called-in address appears on your phone. Highlight the newly entered address and press **OK**.

NOTE: In the Personalizing section, you will find a tip that simplifies restarting TeleNav.

Below is a sample of what you will hear and say:

> **TeleNav prompt> Welcome to TeleNav! Let's get your destination. Is it a street address, an intersection, or an airport?**
>
> Your response> Street Address
>
> **TeleNav prompt> OK, Tell me the 5 digit ZIP code, or the city and state, like Los Angeles, California.**
>
> Your response> Arlington, Texas
>
> **TeleNav prompt> I heard Arlington, Texas. Say GO BACK if this is not correct. <pause> Say the street including both the number and name, like 422 Main Street. <pause> It can also be a highway.**
>
> Your response> 1620 Oak Street
>
> **TeleNav prompt> I heard 1620 Oak Street. Say GO BACK if this is not correct. <pause> Great, your destination has been entered: 1620 Oak Street, Arlington, Texas 75210. Would you like to enter another?**
>
> Your response> Silence (assuming that 1620 was correct)
>
> TeleNav prompt> Thanks for calling TeleNav.

The Voice Address Input System may ask you for account number and PIN if caller ID is not working. Simply dictate the numbers as prompted, or key in your SouthernLINC phone number followed by pressing "#" and your TeleNav PIN followed by pressing "#." If this happens, consider using **Preferences** > **Voice Number** to change to the other dialed number.

The recognition system may reply back with an incorrectly recognized input. When this happens, simply say, "Go Back" and repeat the data entry. The voice system may advise you that a street number is out of range and provide the proper range of numbers for you to use. Provide a number that is within the range or nearest the end of the range that you are

sure is valid. If you say “Intersection” and then provide a crossing street name, the voice system may advise you that the streets you provided do not actually cross and allow you to change either street name, or both street names. Select the name you want to change by saying it, and then provide the correct name.

You can also say “My Home” or “My Work” to program these addresses for use on the handset. If you want to change one of these addresses, say “My Home” or “My Work,” wait for the current address to be repeated back to you, and then say “Update.” You can also say “Airport,” and then give the name of the airport, its location city, or its market city name.

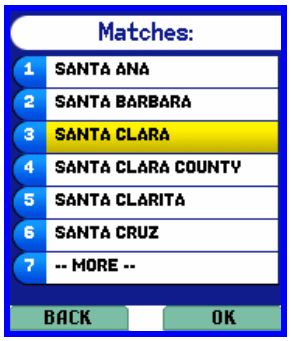
After the Voice Address Input System has completed its dialog with you, it will advise you to launch the TeleNav application, and then it will hang up. If TeleNav is running, you should press **MENU** > **RUN Java Apps** > **RESUME** and choose the **Refresh List** option when you see the list of addresses so that recently dictated addresses will appear in the list.

Key in Address

You enter the new address using a City/State combination or a ZIP code followed by entering the numbered street address or the crossing street names.

Enter the city name and the US Postal Service state abbreviation (e.g., “CA” for California) or the zip code. Only the first three (or more) characters are needed to enter the city name. For example, if you were trying to enter “Santa Clara” as the destination city, you would enter **san** using Alpha mode.

To enter a ZIP code, enter a valid ZIP code and press **OK**. Once you have entered a valid zip code, the TeleNav servers will find the matching city and state name for the Zip code, and then you will be asked to enter the street name.



Hint: Use the “***←**” key at the lower left corner of the keypad to backspace and remove incorrectly entered letters. Also note that some keys are marked with alternative characters that they will be displayed after several key presses. Pressing the 1 key in Alpha or Word mode produces a spectrum of punctuation, most of which is not needed for address input.

After you enter a city prefix, you will be presented a list of city names to choose from, unless there is only one unique match. If there are too many matching names, you may be asked to enter more letters. Highlight the city name you are looking for using the up/down 4-way Navigation Key, and press the **OK** key. After you pick a name from the list, or if the name is uniquely matched, you are taken to **Street Name Input** (see below).

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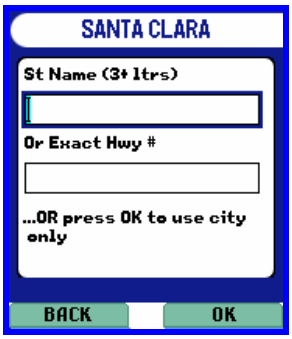
Enter three or more letters or numbers of the street name, or move down to the highway entry field using the 4-way Navigation Key and enter the numbers of the route number. For street names, you may have to change the input mode from Word to Alpha or Numeric mode by pressing **Menu** and making a Selection. For example, to enter "223rd Street," because it is a street name and not a highway number, you will use the upper field, press **Menu**, select Numeric mode, enter **223**, press **Menu** again, select Alpha mode, and enter **rd** before pressing **OK**.



If you are entering a highway number, use the bottom field and enter only the numeric part without any alphabetic prefixes. For example, to enter US-99, simply type in 99.

As in the city name case above, after you enter part of the street name, you will see: a) the street name list, b) an advisory that too many matches were found and you should enter more letters, or c) an advisory that no matching name was found.

Next, you will be asked to enter either the address number or intersecting street name. Enter the door number in the first input row, or navigate down to the second input row and enter the first few characters of the intersecting street name. For streets that are numbers, use the number abbreviation input method described above. When you have input the name or number, press **OK**.

If you enter a cross street name prefix, you may be presented with a list of street names to choose from. Highlight the one you want and press **OK**.

Address Validation

After you input a new address, you will see an address confirmation screen showing the address that TeleNav validated and the current routing type.

The **MENU** allows you to select a change the input address, use a different origin address (Start Elsewhere), use a different routing type, or go back to the TeleNav Home menu. Press **OK** if the presented data is correct.

If the address could not be validated, make sure that: a) the address (door) number you entered is within the range of assigned numbers for the named street and b) when crossing street names are provided, the streets do actually cross. If either condition is false, or the address is too new to be found in the mapping database, the server will send a message to your phone requesting you to correct the provided information. For example:

Using an Airport as an Address

Simply highlight **Airport**, and press **OK**. Input the airport code, such as IAD for Dulles International; or the first few letters of the airport name, location city, or market city. For example, If you enter “NEW” TeleNav will produce a list of airports in NEW York City; NEWark, NJ; NEW Orleans; etc. You simply highlight the one you want, and press **OK**.

Using Biz Finder to find an Address

See the section regarding the **Biz Finder** feature for more detailed information. To use **Biz Finder** to set an address: a) specify the search point or area first, b) decide whether you want to search by Category or Business Name, c) if you selected Category search, navigate through the categories until you have reached the list of matching businesses, d) select a specific business, and e) press **OK**.

Using a Recorded Location as an Address

If you choose to use a Waypoint as an address, you will be presented with a list of waypoints you have previously marked and labeled as shown above under **View Waypoints**. Highlight the one you want and press **OK**. At this point, your phone will contact the TeleNav servers to convert the latitude and longitude of the waypoint to an approximate street address.

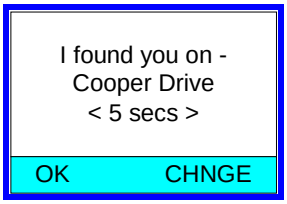
Web Address Entry

Go to the TeleNav website, click on “My TeleNav” at the upper-right corner of the page, and log in using your account number and PIN. Then select the “Add Addresses” tab, type in the address you want to go to, and click the **Add address to my phone** button. The address will be validated and will appear in your phone’s TeleNav address list the next time you use TeleNav and select **Refresh List**.

GPS Origin Refinement

If are using GPS Navigation and you are in a parking lot or similar area where your location does not exactly map to a specific street, you may see a screen that says:

If you are not on the suggested street, press **CHNGE** and pick the street you are on from the displayed list. Otherwise, press **OK**, or just wait for the timer to count down.



NOTE: If you are not sure of the street you are on, simply select the first street in the list and start driving. TeleNav will revise its estimate of your location and provide you with a new route if needed.

Guidance Instructions

The guidance instruction screens you will see have the following content, but will have different proportions than those shown below depending on the screen size of the mobile phone. GPS navigation and Non-GPS directions screens have slightly different content as explained below. When TeleNav is communicating with the TeleNav servers, a network activity indicator replaces the GPS indicator shown in the lower right corner of the screen.

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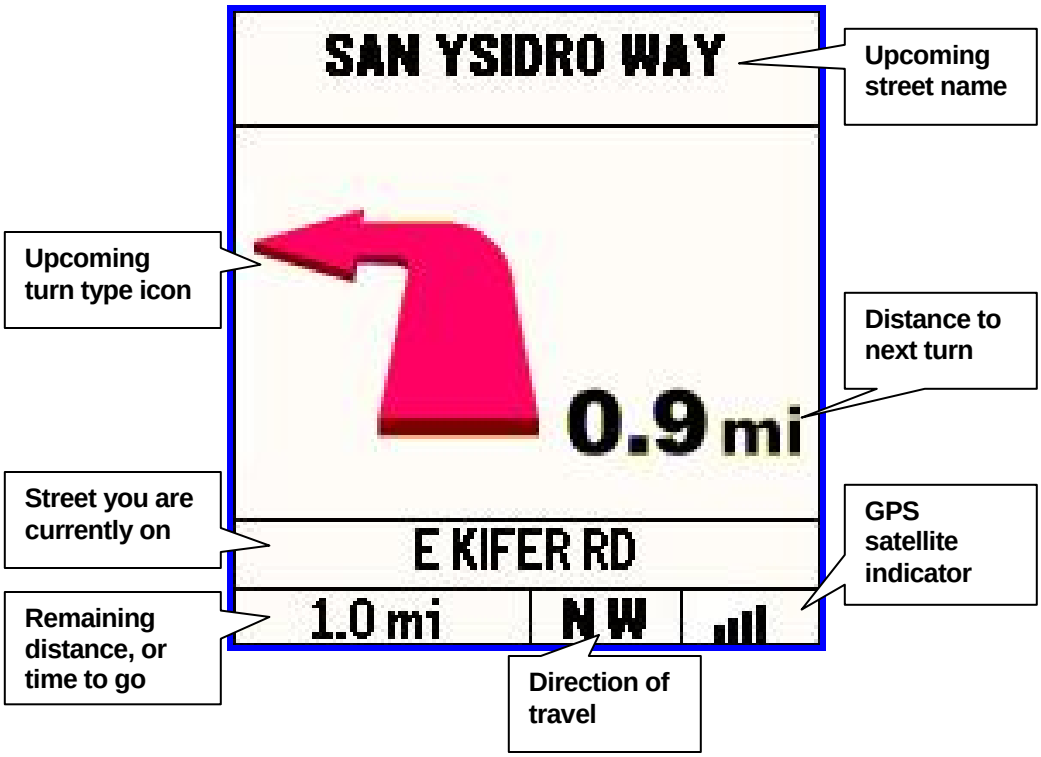
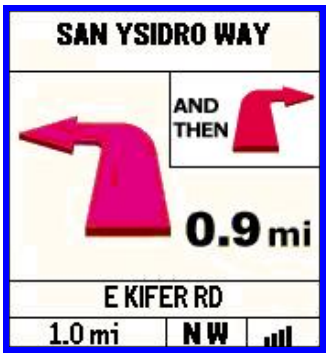


When the turns you will need to make occur in rapid succession, a second upcoming turn type icon will appear above the distance to the first turn. This smaller icon represents the type of turn following the turn depicted by the larger icon.

NOTE: Every few seconds, the total remaining distance field on the left side of the screen is replaced with an estimate of the total time remaining.



Navigation Guidance

If you will be traveling on the same roadway for a mile or more, the Upcoming and Current Street names will be the name of the street you are on, and the turn type icon will be a vertical arrow. As you approach the turn, the Upcoming Street name will change, and the icon will portray the actual type of turn you should make. As you move, the distance to turn and the remaining distance will decrease. Visit the TeleNav website to alter this behavior as described in the Personalization section.

Eventually, you will see the destination arrival screen. This screen will show you how far it is to your destination and whether it is on the left or right side of the street or road.

For TeleNav to work, the GPS receiver must be tracking four or more satellites. When three or less are being tracked, the satellite indicator will be blank. When four satellites are being tracked, one bar will appear. As more satellites are tracked, more bars appear. If the indicator is blank, you should more to an area with a clearer view of the sky.

When you arrive at your destination, press **MENU**. The available options will allow you to go back to the TeleNav menu. You can also press **MENU** and select a whole route map.

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Audible Messages

TeleNav delivers one or more audible guidance messages as you approach a turn or junction. The preparatory message will be heard no less than 30 seconds before you reach the turn, and the action message will be heard no less than 10 seconds before you reach the turn. The preparatory message may not be heard if the distance to go only allows time for the action message. The lead-time for these messages is increased proportionally to your driving speed to allow more time for changing lanes on freeways than on surface streets. Visit the TeleNav website to turn audible street names on or off.

Audio Replay

If you wish to hear the action message for the current route segment without waiting, simply press the Green **Send** Key.

Miss a Turn?

Whenever you miss a turn, turn the wrong way, turn too early or too late, or otherwise get off the planned route to your destination, TeleNav will automatically create a new route to your desired destination, audibly announce, “New Route,” and give you a new set of instructions. If you realize you have gotten off the route, just keeping going. TeleNav will detect your “departure” and calculate a new route to get you back on track.

Please note that it takes about 15 seconds for TeleNav to update your route. If during this process you also make adjustments, TeleNav will probably have to contact its servers for another new route. Re-routing uses substantial network bandwidth, so it is advisable for you to try to stay on the route. Since TeleNav **GPS Navigation** requires the SouthernLINC network, if you are off route and outside of SouthernLINC coverage area, you must return to SouthernLINC coverage for **GPS Navigation** to work again. In the mean time, press **BACK** to suspend its operation.

Preview the Route

When you use a GPS-based origin for real-time GPS navigation, once all of the routing information is delivered to your phone, you can press the **PREVU** key to switch to Non-GPS Driving Directions to preview the remainder of the route. This **PREVU** key is not present if you enter the origin using “Start Elsewhere” as described in the section below.

Rocking the 4-way Navigation key to the right goes to the next page of directions, and rocking it to the left goes to the previous page of directions. In this mode, the Direction of Travel indicator is replaced by an indicator reading, “m/n,” showing that you are viewing page “m” of a total of “n” pages. When m and n are the same, you have scrolled to the end of the route.

The GPS indicator is not relevant or shown when operating in this mode.

Start Elsewhere

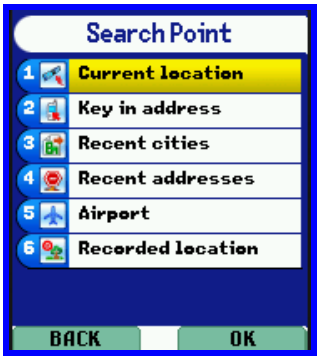
On the address validation screen shown above, you can press **MENU**, highlight the **Start Elsewhere** option on the menu, and enter the Origin address for the Driving Directions using the same options as were available to you while entering or picking the destination address. If you use a new address, you will also see an address validation screen for the origin.

Biz Finder

If you select **Biz Finder**, the first thing you must do is to help TeleNav determine where you want to look for the business or point of interest. Once you have picked a point or an area, you can search topically by **Category** name, or by entering the first few letters of the **Business Name**.

Search Point

You can search around where you are (Current location), around an address you recently used or entered (a recent address), within a named city or ZIP code, around an airport, or around a previously recorded location. You can also enter a new address and search around it.

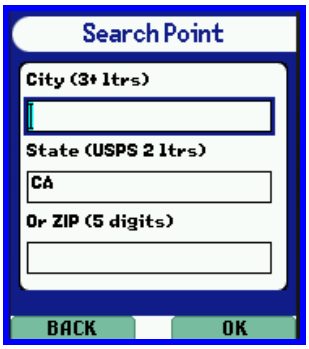


Selecting **Current location** causes the GPS receiver to determine your current location as the search point.

If you select from the **Recent Addresses**, you will get a list of recently used addresses, but may need to use **Refresh List** to update the list with addresses recently entered using the Voice Address Input System or the TeleNav website. Once the list is updated, simply highlight the address you want and press **OK**.

If you select to search **Recent cities**, you will get a list of the cities you have used previously entered.

If you select to search around a **Key in address**, enter either the ZIP code or the state abbreviation and city name. Then enter the street address (street name and number, or street name and crossing street name).



Hint: Entering a ZIP code is quicker than entering a new state and city name.

If you select to search around an **Airport**, you will enter the airport code or a few letters to locate the airport as described above.

If you choose to search around a **Recorded location**, you will see a list of the labeled locations you have marked. Highlight the one you want and press **OK**.

After you have specified the search point or area, you are offered the choice to search the **Categories** that TeleNav uses to group businesses, or using the first few letters of the **Business name**.

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Category Search

If you select categories, TeleNav will contact its servers to get the current category list, updating it if necessary. The category list spans several displayed pages. To move to the next page, find the **MORE** entry and press **OK**.

Some categories, particularly **Restaurants**, will have many subcategories that are displayed similarly, and will require you to select **MORE** and press **OK** to continue through the subcategory list.

The list of categories and subcategories may change as TeleNav updates the directory. After you have navigated through the category tree, you will be presented a list of matching business names.

Whenever you are a few pages into a list like the above screen shows, pressing **BACK** will allow you to go back to the preceding page.

However, when you have reached a certain depth in the category tree, using **BACK** becomes laborious, so a **MENU** is provided to allow you to go **One Step Back**, change your search strategy (**Biz Categories** or **Biz Name**), search elsewhere (**Chg Search Pt**), or return to **TeleNav Home**. Note that when this menu is displayed, **One Step Back** simply returns you to where you were when you pressed **MENU**, and **OK** commits the action you want to take.

Business Name Search

If you select the **Business name** search method, you will need to enter the first few letters of the business name. After you press **OK**, you will be presented a list of matching business names.

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After you have selected a specific lowest-level subcategory or entered part of a business name, you will be presented with a list of businesses that are near the search point or within the search area you specified. For searches conducted around a point, the mileage (as the crow flies) from the point to the business is included. For area searches, no mileage is shown.

After you highlight and pick a specific business, you will see a screen that shows: a) the name of the business, b) the street address, and c) the phone number.

The **MENU** options are: 1) drive to the address, 2) save the business address for later, 3) obtain a map around the business location, or 4) call it using your SouthernLINC phone (requires a calling plan). If you **Save For Later**, the address is sent to the TeleNav servers so that it will appear in the recent addresses list, but first you will need to use the **Refresh List** feature.

NOTE: If you enter Biz Finder from another function such as GPS Navigation or Maps, the **MENU** key shown above is replaced with **OK**, allowing you to employ the business address for the function you are using. If you need to use Biz Finder to make a call, enter it directly from the TeleNav menu.

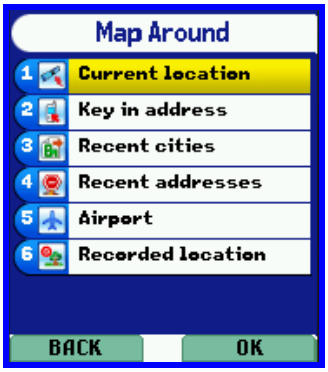
The **Call It** feature is only present in the options list if the prior display shows a phone number. If you choose **Call It**, the phone number will appear on your phone's calling screen, and you will have to press the Green **Send** key to place the call. When the call is completed, press **Menu**, select **Java Apps** to return to TeleNav, and press **RESUME**.

Maps

Highlight Maps on the TeleNav Home menu to begin.

If you choose **Current location**, there will be brief activity while TeleNav employs GPS to determine your location, followed by a transaction with the TeleNav server to retrieve the data needed to draw the map.

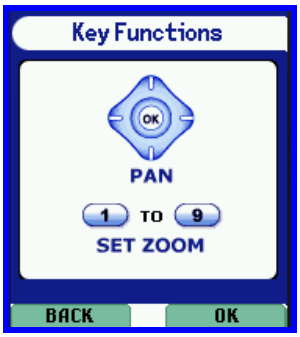
If you choose one of the other available options, **Key in address**, **Recent cities**, **Recent addresses**, **Airport**, or **Recorded location**, you will be presented with a screen labeled **Map Around** that allows you to enter a new address, enter an airport, pick a recently used address from the list, or pick a waypoint. If you choose **Recorded location**, you will be provided with a list of waypoints you have previously marked, if there are any. Select the one you want, and the coordinates are sent to the TeleNav server so that it can prepare the data needed for your phone to draw the map.



After you have entered an address and the TeleNav server validates it, the TeleNav server prepares the data needed for your phone to draw the map.

Map View

Before the map is drawn, a helper screen is shown that describes how to move (pan) the map, and how to zoom in and out. The current zoom level is shown as a fraction in the upper right corner of the map (shown as 4/9 in the figure below). Here are the key functions:

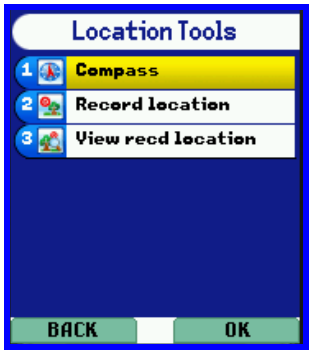


- 4-way navigation key – Moves the map up, down, left, and right (panning).
- Numbered keys – Set the zoom level from 1-9. The current level is shown as a fraction in the upper right corner of the map.

Once you have placed the cursor cross at a point on the map that you want to record, press the **MARK** softkey and save the marked spot as a Recorded Location.

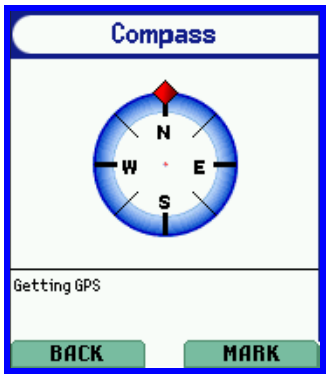
Location Tools

The TeleNav **Location Tools** do not require SouthernLINC Java access package service or a TeleNav subscription. If you select **Location Tools** from the Main Menu, you will be taken to the **Location Tools** submenu. You can make a choice by highlighting the item and pressing **OK**. Otherwise, press **BACK** to return to the Main Menu.



Compass

If you choose **Compass**, you will see a display similar to a nautical compass. It displays your course over ground, the direction you are traveling if you are moving. The screen also provides current latitude, longitude, and speed. Using the Main Menu **Preferences**, you can select the format of the speed as miles per hour or kilometers per hour. Press **BACK** to return to the **GPS Basic** submenu.



If no GPS data is available, “No GPS” appears instead of latitude and longitude. Otherwise, a GPS satellite count indicator occupies the area below the speed value. Add three (3) to the number of bars shown to determine the number of satellites being tracked by the GPS receiver. When the indicator shows that 7 satellites are being tracked (which is good), the receiver may actually be tracking even more (which is even better). The right **MARK** Option Key allows you to record your current location directly from the **Compass** view.

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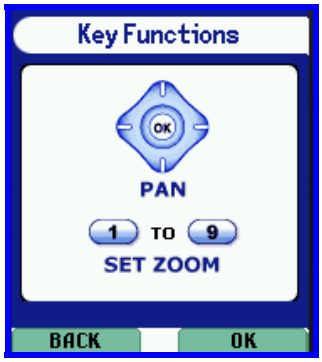
Record Location

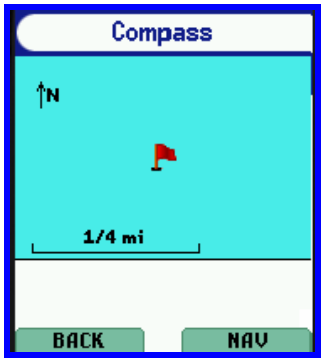
This menu option (also available from **Compass** view) allows you to mark and label your current location for future reference. If you choose **Record location**, there will be brief activity to determine the GPS position, and then you will need to enter a label of at least 3 characters length, or you can accept the default label based on the current date.

NOTE: In this text a "recorded location" is also referred to as a "waypoint."

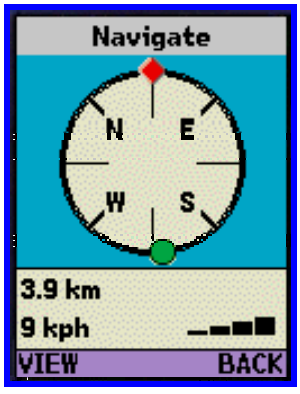
View Recorded Location

Selecting **View rec'd location** allows you to see the spatial relationship of a selected waypoint relative to your current location. If you have not recorded any locations, you will simply get an advisory message and you should press **OK** to return to the submenu. Otherwise, you will see a list of location labels to pick from. After you pick one, you will see the location's latitude and longitude. The next display teaches you the key functions that allow you to manipulate the following screen that shows you the relationship of your current position to the waypoint. The flag represents the selected location. The view is North oriented, and the approximate distance to the waypoint is shown, along with your current speed and the GPS signal quality indicator.





To see the location's position relative to your current direction of travel (provided you are moving at least 5 MPH), press **NAV** to produce the view to the right.



This example shows that you are traveling toward the northeast, and the selected waypoint (indicated by the green circle) is almost directly behind you in the southwest direction. The display also shows your speed and the distance to the waypoint. The **Navigate** view updates as you move. Press **View** to return to the prior screen. Press **BACK** to return to the submenu.

To go toward the stored location, change your direction of travel toward the green dot, and it will align with the red diamond when you are headed directly toward the stored location.

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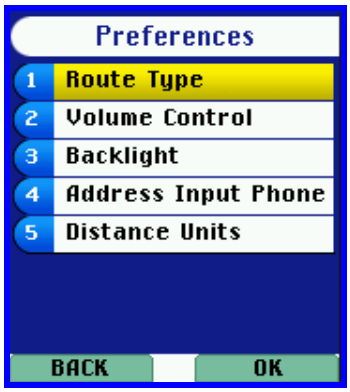
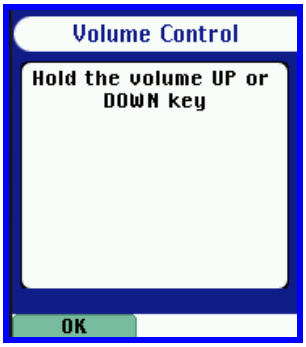
Preferences

If you select **Preferences**, you can define: 1) the **Route Type** to either fastest, shortest, prefer highway, prefer no highways, or pedestrian to optimize TeleNav routing, 2) adjust the speaker audio volume using **Volume Control**, 3) turn the **Backlight** on or off, 4) pick the number dialed when using Voice Call to set an address, and 5) set the displayed distance units to either feet and miles or kilometers and meters.

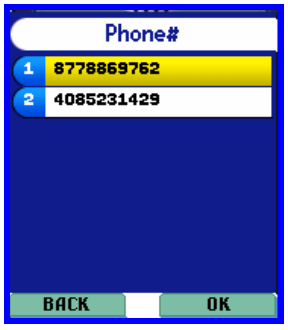


If you select **Volume Control**, you will be instructed to press the volume up or down key on the side of the phone. When you do this, the deviation sound will play, allowing you to hear the current level.



Selecting **Backlight** allows you to turn the backlight ON or OFF. Selecting **Support** (listed last, and not shown above) provides you with TeleNav's website URL and customer service phone number. **Distance Units** changes apply across the entire TeleNav application.

There are two **Address Input Phone** numbers to choose from under Voice Number. In some cases, calls placed to the 877 number do not carry your Caller ID. When this happens, the automatic voice attendant will ask you to enter your mobile phone number followed by pressing the "#" key, and then enter your TeleNav PIN followed by pressing the "#" key so that TeleNav can assign the address you dictate to your account. Changing the dialed number to 408-523-1429 should overcome this situation so that the automatic attendant will not ask for this information in the future.



Activity Messages

Whenever the TeleNav application on your phone needs server assistance, it uses SouthernLINC wireless Java access package services. While it is using Java access packages, other services such as walkie-talkie, SMS 2-way messaging, and conventional cellular will not be available. Typically, this interruption of other services will last no more than 20 seconds.

When TeleNav is using the wireless Java access package service to contact the TeleNav servers, it will present a message such as: a) Reading GPS…, b) Waiting …, c) Sending …, d) Receiving…, e) Logging in…, f) Personalizing …, g) Loading icons…, h) Loading audio, and i) Storing audio. You will also notice a small network activity indicator in the upper right corner of the map display after you press a key to pan or zoom the map.

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Taking an Incoming Call

When your phone receives an incoming call, it will ring and display a screen that allows you to take or ignore the call. If you take the call, TeleNav will be operating but "suspended." After the call, press the red **End/Home** Key to end the call, and then press the **MENU** key. Highlight **Java Apps** and press the **OK** key.

The presented menu will include a "suspended apps" folder. Highlight this folder and press the **OK** key. Then highlight **TeleNav 3.8** and press the **OK** key again to "awaken" TeleNav. If TeleNav has been suspended for a while from **GPS Navigation**, it may ask you to confirm that you are continuing to the same destination.

You can also press the red **End/Home** Key while TeleNav is running to force it to suspend. Use the steps described above to awaken TeleNav.

8. Personalizing

We suggest placing TeleNav as the right softkey option on the main SouthernLINC screen. This allows you to a) quickly start TeleNav when you need it, and b) resume TeleNav after you have made a voice call to dictate an address from within TeleNav. To perform this personalization, follow these steps:

1. Press the **Menu** key on your phone.
2. Using the 4-way navigation key, highlight **Settings** and press the **OK** key.
3. From within the Settings menu, highlight **Personalize** and press the **OK** key.
4. Scroll down until **Right Sftkey** is highlighted and press the **OK** key.[2]
5. Scroll *up* until **TeleNav** is highlighted and press the **OK** key.
6. Then press **Back** until you have returned to the SouthernLINC home screen.

NOTE: The default use for the right softkey is "Messages," should you wish to change it back.

9. Error Conditions

Unable to reach server

If you see an activity screen for 45 seconds followed by a message that says, "Unable to reach server" and it is your first attempt at using TeleNav, you should contact SouthernLINC customer care directly at 1-800-818-LINC (5462) to resolve this issue. Most likely, your wireless Java access package is not provisioned correctly.

If you drive into an area where there is intermittent or no ability to connect to the SouthernLINC wireless network or there is a problem within the wire line network between SouthernLINC wireless gateways and the TeleNav servers, and this problem has persisted for 30 seconds or more, you will get a message stating, "Unable to reach server." The TeleNav application on your phone will attempt to reconnect within 7 seconds.

TeleNav not available

If you get an advisory message that TeleNav is not available, you should EXIT the TeleNav application, and then restart it. If the problem recurs, it may be due to a temporary TeleNav server outage.

[2] Two other good choices are the UP arrow key that normally is used to activate the basic GPS feature, and the LEFT arrow key used to access the browser. However, these keys do not have a visible label, so you will have to remember the assignment.

GPS Access Restricted

If you get a message stating that TeleNav cannot access the GPS receiver data, you will need to change the privacy setting. First, **EXIT** TeleNav, and then follow the directions provided above in the GPS Privacy section.

GPS Signal Weak

If GPS signal reception is weak due to shadowing within the vehicle or due to buildings, trees, overpasses, etc., validation will fail, producing a screen that will advise you that the GPS signal is weak and you should move to an open area. It is suggested that you move to an area with a clear view of the sky and then click "**RETRY**." If you are still having problems, you can still driving directions by pressing the NONGPS key while the GPS receiver is trying to determine your current location as the origin point.

Low battery

The GPS will not start if the phone's battery is very low. This is because the GPS receiver needs the phone battery to be at least half charged. The phone should be charging using the GPS; otherwise, the phone battery depletes very quickly. If you get a low battery warning, connect a charging cable as soon as possible.

10. Exiting TeleNav

If at anytime you wish to exit TeleNav, press the **BACK** key until you reach the TeleNav Main Menu and then press **EXIT**. You will then be asked to confirm that you truly do want to exit TeleNav.

11. The TeleNav Website

Using the features describe below requires you to log into the website using your SouthernLINC phone number (TeleNav account number) and TeleNav PIN. When you log in, you will be taken to the Account Management page.

Account Management

Within Account Management, you will find links that allow you to change your e-mail address and PIN, and to set or change your home and work addresses.

Personalization

Personalization allows you to change server-controlled preferences such as the audible guidance prompting language, whether or not audible street names are provided, and when the Guidance Instructions display should transition from the Continue ahead vertical arrow to the next turn's turn-type arrow.

Preplanning

Click the My TeleNav link on the website and log in with your account phone number and PIN. Then click the "Add Addresses" tab to enter new addresses for use within TeleNav on your phone. You can also use this page to remove addresses you no longer need. After you use website preplanning, be sure to use REFRESH LIST on your phone so that TeleNav can learn about the changes.

Customer Service

If you need to reach customer service, you can use the Contact Us link on the right side of the web page after signing in, or send e-mail to care@telenav.com. You can also call us at 88-TeleNav-4 (888-353-6284) for most service issues.

12. FAQ's

My phone is not producing audible output during GPS Navigation

The most common cause of this problem is that setting the audio level to VibeAll has defeated the phone speaker. To change this, with the phone cover closed, adjust the audio volume louder until the level is set at 4 or 5. Press the **MENU** key and look for RING TONES. You may find it on the next screen after pressing MORE. Highlight RING TONES, and press the **OK** key. The first line is the VibeAll entry. Make sure it is set to OFF.

How do I increase or decrease the voice prompt volume and control the backlighting?

The backlight and speaker volume levels can be controlled from within TeleNav. Just follow the instructions under the Preferences section.

Why do I need the SouthernLINC Java access package service?

The wireless Java access packages allow you to access nationwide maps from the TeleNav server for accurate turn-by-turn directions using the data communication features of your Java phone. These services are different from your cellular airtime and not the same as SouthernLINC wireless Java access plans.

How long after I apply for the SouthernLINC Java access package service until I can use my TeleNav system?

Generally, it takes until the following business morning before the wireless Java access package is fully provisioned.

How much Java access package have I used?

Your SouthernLINC phone tracks this usage. Press **MENU**, and then scroll down to MORE. After selecting MORE, or if you do not find MORE, select CALL TIMERS. Then, select KBYTES RESET. The next display will show you approximately how many kilobytes you have used. Divide this number by 1000 to convert it to megabytes, and compare this with your Data Access (Java access package) plan limit. When you have finished looking, press **DONE**. If you want your usage report to correlate with your SouthernLINC bill, press RESET once monthly on the day SouthernLINC closes your billing cycle.

Does TeleNav use up my voice plan minutes?

TeleNav uses Java access package to provide the navigation function. Using Java access package does not use any of your voice minutes. However, calling the Voice Address Input System does use about 70 seconds per address entered, and this includes the Voice Call feature internal to the TeleNav application.

How accurate is the GPS?

GPS accuracy can range from 20m (approx. 65 ft) to 100m (approx. 328 ft). Most of the time, the GPS is accurate to less than 50 meters (approx. 164 ft). Our external GPS receiver also uses WAAS technology to further reduce the error.

What is ideal GPS environment?

The GPS requires an open, clear view of the sky. Buildings, covered parking areas, tunnels, and dense foliage can cause the GPS receiver to either be unable to locate itself (fix) or have extended initialization time (start-up fix).

If you are parked in a covered parking lot or near a tall building, it is recommended that you move away till you have a clear view of the sky and then begin to use the TeleNav service.

You may need to give the GPS a few minutes to find its location.

How do I know that the GPS has a signal?

The TeleNav application on your phone will alert you if the GPS does not have a valid signal. If this happens, drive to an area where there is a clear view of the sky so the GPS can find itself. You can also invoke the GPS application by pressing **MENU**, then highlight GPS or the satellite icon and press the **OK** key. Highlight position and REFRESH if necessary. If the screen shows SCANNING for more than 60 seconds, you are probably in a poor GPS reception area.

Why does the GPS not work near buildings and other tall objects?

The GPS uses satellite signals from space to find out where it is. Therefore, it needs a clear view of the sky. Tall buildings and other objects that block the receiver's view to the sky make it infeasible to determine your location. Sometimes, the satellites are not overhead but near the horizon; in these cases, the GPS must have a clear view of the horizon.

How do I enter my destination?

Your destination can be entered in three ways. The first way is to call 877-886-9762 or 408-523-1429 and "dictate" your destination address to the Voice Address Input System. Then launch the TeleNav application on your Java phone and this address automatically shows up in the recent destinations list.

The second way to enter your destination is to type it in using the keypad.

The third way is to go to www.telenav.com, log in, and then enter your destination address, or multiple destination addresses (up to 10 since this is all the phone can display at once).

Why do I have to call in a phone number to enter an address?

There are multiple ways to enter an address: a) Call the Voice Address Input system and dictate the address, b) preplan it by logging into www.telenav.com, and c) entering directly on the phone keypad.

13. Customer Support

Send an e-mail with your questions or comments to the appropriate company's Customer Service Department, or enter a comment through the website. We monitor your e-mails and will promptly reply to your inquiries.

TeleNav Inc.
1130 Kifer Road
Sunnyvale, CA 94086
F: 408.245.0238
www.telenav.com

Technical Support
T: 88-TeleNav-4 (888-353-6284)
care@telenav.com

14. TeleNav Services Warranty

The content and Java application services provided by TeleNav is provided “as is” and “as available” without warranties of any kind, either expressed or implied, including but not limited to any warranties of merchantability or fitness for particular use, or non-infringement. You acknowledge that your use of the TeleNav service is at your sole risk and you agree that the service and the information provided are without warranty of any kind by TeleNav.

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